

VITALITY OF THE COMPARABLE EARNINGS STANDARD FOR
REGULATION OF UTILITIES IN A GROWTH ECONOMY*

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I. INTRODUCTION

AMONG the most complex and searching problems of modern government is the delineation of standards for determining the "fair return" to be accorded a privately owned company the prices or rates of which are being regulated. The classic setting for this problem, first in time and still of prime significance, is the regulation of the rates charged by a common carrier or public utility enjoying a monopoly or quasi-monopoly in its own particular field of service. Even at common law, a common carrier was required to charge only "a reasonable sum . . . and not to extort what he will."¹ In the nineteenth century utilities and common carriers in the United States came under the regulation of state statutes prescribing specific rates. Today, and for many years past, the prevailing type of state statute is one which provides in general terms for just and reasonable rates, with specific determination by a regulatory commission.

State regulation of conventional public utilities was next extended to federal programs designed to prevent monopoly prices in interstate commerce. Legislation of the 1920's covered packer and stockyard charges and legislation in the 1930's the interstate transmission of electric energy and natural gas. Meanwhile, there were the depression-born minimum-price programs for such commodities as milk and coal — sanctioned under an evolution of the judicial doctrine that price control is not restricted to the traditional range of businesses "affected with a public interest" but is permissible whenever there is a showing of reasonableness in terms of the need and scope of regulation.² Emphasis on minimum rates also came to predominate in the regulation of common carriers by the Interstate Commerce Commission as it administered the provisions of the Transportation Act of 1920 for protection against destructive competition

*This Article is the outgrowth of research undertaken by me as a consultant for the American Telephone & Telegraph Company on an express understanding that I was to be free to publish my researches and analysis whatever my conclusion.

This article sets forth material which was first presented in part in my testimony before the Federal Communications Commission on September 19-20, 1962, and again on July 9, 1964, in meetings reviewing the interstate rates of the American Telephone & Telegraph Company.

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1. *Harris v. Packwood*, 3 Taun. 264, 272 (C.P. 1810) (dictum).

2. *Nebbia v. New York*, 291 U.S. 502 (1934).

among different forms of transportation. World War II and the Korean emergency brought a new regulatory pattern in the determination of maximum prices (and rents) for virtually all industry. This was emergency-limited regulation to achieve broad price stability and its concomitant, wage stability. That broad price and wage stability is still a matter of concern, though without formal powers of control, is dramatized most vividly in President Kennedy's intervention against the 1962 steel price increase.

The different situations which gave rise to these programs led to differences in the content and underlying standards governing prices and rates. Thus the concept of "just and reasonable" in the public utility statutes oriented against extortion by a monopoly is typically construed in terms of limiting the utility to a "fair return" on utility property, whether determined by book value or a current valuation process.³ But the "generally fair and equitable" standard of wartime maximum price regulation, aimed at price stability in the face of abnormal inflationary pressures, was administered in terms of an industry profits standard defined as the profit levels prevailing during the years prior to the onset of World War II, with the result that in terms of return on investment⁴ there were material differences between industries.

Though one should hesitate to offer a unifying theory for such a diverse field the pervasive concept seems to be that government price or rate regulation is justified when particular economic conditions are or may be out of kilter with free competition, and that governmental regulation is intended to achieve the results which under "normal" conditions would have been available with free, fair and normal competition.⁵ This standard has inherent difficulties of application. Granted that there is no competitive market for the commodities

3. See footnotes 6-9 *infra* and accompanying text.

4. *Gillespie-Rogers-Pyatt Co. v. Bowles*, 144 F.2d 361 (Emer. Ct. App. 1944), upheld the validity under the Emergency Price Control Act of the general industry earnings standard. Quoting from a report of the Senate Committee on Banking, the court said:

Under this [industry earnings] standard, as a general rule, price increases are allowed to compensate for those cost increases which the industry cannot absorb without impairment of its normal peacetime earnings. As a guide for determining the extent to which price increases are required under this standard, the Administrator uses a representative peacetime period, usually the years 1936-39, the base period adopted by Congress for excess-profits taxes. Where this period is not fairly representative, the years included in the period are varied or other appropriate adjustments are made.

Id. at 363.

5. For typical statements that "regulation takes the place of and stands for competition," see, e.g., *State ex rel. Kansas City v. Kansas City Gas Co.*, 254 Mo. 515, 534, 163 S.W. 854, 858 (1914); *State Pub. Util. Comm'n ex rel. City of Springfield v. Springfield Gas & Elec. Co.*, 291 Ill. 209, 218, 125 N.E. 891, 896 (1919). Cf. the *Report of the Committee on Progress in Public Utility Regulation*, NATIONAL ASSOCIATION OF RAILROAD AND UTILITY COMMISSIONERS, PROCEEDINGS OF THE FIFTY-THIRD ANNUAL CONVENTION, 1941 at 369 (1942):

The purpose of regulatory procedure, in the protection which it is designed to afford the consumer, is to stimulate and substitute the effects of competition and give the consumer the benefits which he would derive from a system of competition.

the price of which is being regulated, how is the regulator to determine what a competitive rate would be? Further, though there may be no competition for the commodity, there is always competition for capital and in order to attract new capital and keep old, the regulated industry must provide a return commensurate with that of non-regulated industries of similar risk; yet an industry in competition might not always be able to provide such a return. Finally, in spite of the stated goal the commission may frequently take into account such broad brush considerations as the public need for the service or the desirability of expanding the service. Brooding over these considerations is the constitutional requirement that prices determined by a public body rather than the market must comport with standards of fairness and reasonableness.

This article is concerned with the determination of "fair return" in public utility regulation. Although the topic is of particular concern to public utility specialists, the experience and analysis of conventional utility rate regulation will hopefully cast light on the basic assumptions underlying other superficially different programs of price regulation.

The requirements of utility "return" were analyzed in the Supreme Court's landmark decision, *FPC v. Hope Natural Gas Co.* (1944).⁶ *Hope* marked the culmination of years of effort by a number of regulators and scholars to eliminate the federal constitutional requirement that rate-makers base their rates on a percentage of "the fair value of the property being used by it [the company] for the convenience of the public."⁷ Determining "fair value" involved a determination of the reproduction costs of the company's physical assets, a lengthy process marked by much speculative testimony by engineers.⁸ To the fair value of the physical assets the commissions were required to add an allowance for the value of the "going concern" over and above the value of the assets.⁹ In *Hope* the Court pointed out the problems of circular reasoning in a "fair value" approach,¹⁰ and provided a clear-cut ruling upholding the validity of utility rates calculated so that the net revenues to the company would provide "a fair rate of return" on a base of the net investment in the company.

Following *Hope*, a majority of the states elected in substance to use the now permissible method of determining utility rates by calculating and covering operating expenses plus capital charges, the latter ascertained by applying an appropriate "rate of return" to a "rate base" equal in substance to the utility's net investment in the property devoted to the public service. With the elimination of inquiry into the current "fair value" of utility property, the ascertain-

6. 320 U.S. 591 (1944).

7. *Smyth v. Ames*, 169 U.S. 466, 546 (1898).

8. See *Missouri ex rel. Southwestern Bell Tel. Co. v. Public Serv. Comm'n*, 262 U.S. 276, 289 (1923) (Brandeis, J., with Holmes, J., concurring).

9. See *McCardle v. Indianapolis Water Co.*, 272 U.S. 400 (1926).

10. See *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 601 (1944): "The heart of the matter is that rates cannot be made to depend upon 'fair value' when the value of the going enterprise depends on earnings under whatever rates may be anticipated."

ment of rate base became a matter for the accountant rather than the engineer.

The role of rate of return was elevated from that of featured player to that of star. The majority opinion of Justice Douglas in *Hope* had introduced the discussion of "fair return" by noting that rate regulation must take account of both the consumer and investor interests. The investor, he stated,

has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view it is important that there be enough revenue not only for operating expenses, but also for the capital costs of the business. These include service on the debt and dividends on the stock. [Citation omitted.]

By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital. See Missouri ex rel. Southwestern Bell Tel. Co. v. Public Service Commission, 262 U.S. 276, 291 (Mr. Justice Brandeis concurring). The conditions under which more or less might be allowed are not important here. Nor is it important to this case to determine the various permissible ways in which any rate base on which the return is computed might be arrived at. For we are of the view that the end result in this case cannot be condemned under the Act as unjust and unreasonable from the investor or company viewpoint.¹¹

The italicized sentences seemed to provide two standards for determining a fair rate of return: The first is the "comparable earnings" standard — that the commission provide a return commensurate with returns on other investments attended by corresponding risks. The second is the "attraction of capital" standard — that the return to the company must be sufficient to attract capital to the enterprise. When viewed theoretically these two standards have much in common; they both recognize if the investor does not earn a rate comparable to that which he could earn elsewhere at the same risk, he will take his capital elsewhere, and the company will not only not attract capital but will lose what it has. In fact, however, the attraction of capital standard became associated with a particular formula for determining the rate to be granted, a formula often referred to as a "cost of money" analysis. The actual or historical cost of debt was taken as the measure of the cost of borrowed money, and an allowance for the cost of equity money was ascertained from the current earnings-price ratios of the securities of closely comparable utilities as indicative of investor requirements for the attraction of their capital. Percentages were taken of these figures in accordance with the relevant percentages of the total debt

11. 320 U.S. at 603 (emphasis supplied). There was a brief moment when fears were expressed that the "end-result" reference removed all standards so that *Hope* would usher in an era of administrative absolutism with no judicial restraint. Justice Douglas took occasion at the next term to deny that judicial review had been rendered merely perfunctory and stated, as to the "end result" principle: "It is a standard of finance resting on stubborn facts." *Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581, 605 (1945). And a companion case made clear that an agency cannot leave its path so unclear as to preclude meaningful judicial surveillance. *Colorado-Wyoming Gas Co. v. FPC*, 324 U.S. 626 (1945).

and equity in the total capitalization, and there was a finding that the resultant overall percentage "rate of return will produce a fair and reasonable 'end result.'"¹² For rulings reflecting the methods of the Federal Power Commission, probably the agency most prominently identified with rate of return problems during the post-war decade, and the variations in judicial attitudes the reader is invited to read and compare *State Corp. Comm'n v. FPC*¹³ and *Colorado Interstate Gas Co. v. FPC*,¹⁴ as set out in the margin.

12. *State Corp. Comm'n v. FPC*, 206 F.2d 690, 718 (8th Cir. 1953), *cert. denied*, 346 U.S. 922 (1954).

13. 206 F.2d 690 (8th Cir. 1953), *cert. denied*, 346 U.S. 922 (1954). The court set aside FPC Opin. 228, Northern Natural Gas Co., 11 F.P.C. 123, (1952), which accorded the company \$38 million in operating revenues, calculated as the sum of gas operating expense, depletion and depreciation, income and other taxes, and a return at 5½%.

On the specific subject of rate of return the FPC noted the following: The company's capitalization was 56% long term debt and 44% common equity — including common stock, premiums on common stock, capital surplus and earned surplus. The debt had been sold to the public at a cost, including flotation costs, of 2.55%. Investors in common stock of seven natural gas companies, the only ones of the eighty-seven reporting to the FPC whose common stock was traded on a recognized exchange, paid prices such that the average ratio of earnings per share to price was about 8.1% for the period 1946-1950, and 7.5% as of the most recent date available at the hearing, April 30, 1951. Even the data for the "four natural gas companies relied on by Northern" were 8.5% average ratio for 1946-1950, and 7.3% as of May 31, 1951.

The FPC stated: (p. 134) "A 5½% rate of return would provide a return on Northern's common stock equity of 8.75% after an allowance of ½% to cover cost of financing, which is after income taxes." In a footnote the FPC set out the following equation:

56% bonds x 2.55% cost of borrowed money	1.43%
44% common equity x 9.25% return on common (including ½% as a representative cost of flotation)	4.07%
	<hr/> 5.50%

The FPC found that a 5½% rate of return "will produce a fair and reasonable 'end result.'" (p. 132) The court said there was nothing in the record or findings rating the risk of Northern Natural with the risks of these seven companies and "no rate of return determination can be set out so meagerly and have conclusive value." 206 F.2d at 722. The court noted that no witness had testified to a rate as low as 5½%; the FPC staff witness had testified to a range of 5¼-6%; the presiding examiner found that investors were reflecting future anticipations, particularly in view of Northern's contemplated expansion, and that taking judgment into account, a fair return on investment was 6%.

14. 209 F.2d 717 (10th Cir. 1953). The court affirmed the FPC's opinion No. 235, 11 F.P.C. 324 (1952), which required the company to reduce revenues by \$3 million. The FPC concluded that 5¾% on investment rate base was fair and reasonable, and would produce 8.45% for the common equity, after allowing ½% for cost of financing, after servicing of debt and preferred stock requirements, and allowing for income taxes.

The company's capitalization was 53.9% long term debt (\$29.6 million) at an average cost of 3.25%; 3.6% preferred stock (\$2 million) bearing a 6% dividend rate; and 42.5% common equity (\$3,314,000 common stock and surplus). Although the FPC said the record contained evidence on a number of items the court found that the FPC had in fact considered only the financial history of the small number of natural gas companies held by the public. The FPC found that the average earnings-price ratio of common stock

The formula as stated in the preceding paragraph is considerably oversimplified. In actual cases commissions frequently adjusted the historical cost of debt for current conditions. Commissions also averaged "current" earnings-price ratios over some time period, but subject to variations the process became in essence an ascertainment of current, or reasonably current, ratios based on a comparison of current earnings with current market prices for equity securities. The mathematical earnings-price ratio approach to cost of equity capital has never been applied according to its full logic, and commissions over the past decade have in fact been according substantially higher returns than those yielded by such ratios; yet the technique of these ratios has continued to be the dominant — if not the sole — tool of analysis in a large number of cases. The technique required some judgment in application, but it had the lure of apparent certitude and simplicity of calculation.

The objection that concurrent earnings-price ratios ignored the fact that investors buy prospective not current earnings was glossed over, largely because of the supposed difficulty of finding any readily administered substitute. As earnings-price ratios of utility stocks declined to or on occasion even below the level of current interest rates on debt, however, the reliability of the foregoing approach came into question even among its staunchest advocates. Before proceeding to analyze the precise difficulties with the earnings-price ratio approach and to see how the commissions have attempted to work their way out of them, I propose first to consider the viability of the alternative standard suggested in *Hope*: the comparable-earnings standard. Contrary to the opinion

of the seven natural gas companies traded on recognized exchanges was 8.2% for the five-year period ending August 1951, 7.5% for the last twelve months, and 6.4% as of October 1951. The FPC found persuasive evidence of the cost of capital in the experience of Colorado itself. On April 2, 1952, just two days prior to the conclusion of the hearing, there was an oversubscription of the sales by stockholders of a majority of the common stock at an offering price of \$26.75 per share, almost twice the book value of \$13.63, reflecting an earnings-price ratio of 7.03% on the basis of 1951 earnings of \$1.88 per share.

The court found this evidence sufficient to sustain the FPC, albeit its 5¾% rate was low. "If we must as urged by Colorado take into account that the eagerness to purchase this stock was induced in the belief of the future development of Colorado's resources, we must on the other hand not be unmindful that that manifested interest was in the face of a rate hearing which might well, as it did, result in a decrease of rates." The court further stated that while it would not say that the "experience of railroads, power transmission companies or utilities in other fields, or the rate of return on Government bonds or industrial bonds in unrelated fields" was not proper for consideration, it was not reversible error to fail to give them "weighty consideration" since "the experience of other comparable gas utility companies, having a sound financial structure and long experience of successful operation, is a better criterion by which to gauge and determine the adequacy and fairness of rate of return."

The court referred to *State Corp. Comm'n v. FPC*, 206 F.2d 690 (8th Cir. 1953), as distinguishable on the facts.

The company's application for certiorari was denied. The decision was reversed on another point in *FPC v. Colorado Interstate Gas Co.*, 348 U.S. 492 (1955) (reversing the action of the lower court in deciding *sua sponte* against the Commission on certain matters).

of some commentators,¹⁵ the leading cases suggest that the primary legal standard offered by the Court is precisely this alternative standard of comparable earnings. This standard, too, aims at attracting and holding capital, but it alone permits direct examination of the ratio between the earnings of a utility and its net worth in comparison with that ratio in companies of similar risk. The cases further show that this comparison may not only be made with regulated companies but also with non-regulated companies with an appropriate discount for the difference in risk. Armed with this new formula, we shall then approach the workings of the commissions in the final section in an effort to demonstrate how the two formulae should be used together in the effort to achieve fair rates.

II. COMPARABLE EARNINGS AND THE SUPREME COURT

A. *The History of the Standard*

The comparable-earnings standard laid down in *Hope* was not a mere parroted of familiar language but rather a deliberate and careful continuance and refinement of a principle which had long been in existence. That principle was first presented in the historic case of *Willcox v. Consolidated Gas Co.*,¹⁶ the first case to examine in depth the concept of "fair return." *Willcox* marked a popular triumph of the public interest over the mighty gas "trust." Eighty-cent gas became a *cause célèbre* in New York as the utility attempted to overthrow the statute specifying a gas rate of eighty cents per thousand cubic feet. The case came to involve a fund of close to \$10 million overpayments held in escrow.

Although the *Willcox* decision was particularly noted at the time for rulings on rate base,¹⁷ there was also attentive consideration by eminent counsel¹⁸ on both sides to the fair rate of return. The commission conceded that the Constitution guaranteed the company a return equal to "interest" — that return available without risk, such as return from government obligations — which did not exceed 4 per cent.¹⁹ However, the commission further argued, there was no constitutional basis for compensation for risk over and above the "interest" factor. Though it admitted that unless compensation for risk was paid,

15. See, e.g., BONBRIGHT, *PRINCIPLES OF PUBLIC UTILITY RATES* 255-58 (1961).

16. 212 U.S. 19 (1909).

17. The court below held the company entitled to 6% as a fair rate of return, and held the eighty-cent statute unconstitutional because the return available thereunder did not amount to 6% of the valuation found (it was about 5.1%). *Consolidated Gas Co. v. City of New York*, 157 Fed. 849 (C.C.S.D.N.Y. 1907). The Supreme Court agreed that 6% was a "fair return" but found that the eighty-cent law provided such a return, holding that good will value should be totally, and franchise value partially, excluded from the fair value rate base.

18. See *Alton Brooks Parker*, 21 *ENCYCLOPEDIA AMERICANA* 325-26 (1956 ed).

19. In 1907 U.S. Government obligations carried interest ranging from 2 to 4% depending on date of flotation and maturity; while yields on municipal bonds averaged about 3¾%. See MACCAULEY, *SOME THEORETICAL PROBLEMS SUGGESTED BY THE MOVEMENT OF INTEREST RATES* 126-27 (1938).

a utility could not attract capital, it nonetheless argued that the legislature was the sole forum for dealing with such "unreasonableness." The company, on the other hand, seeking a 10 per cent return, argued that failure to compensate it for risks would as surely condemn it to death, albeit a slow one, as would the outright denial of all compensation.

The Supreme Court agreed with the company's view that the Constitution required a return for risk as well as pure interest:

Such compensation must depend greatly upon circumstances and locality; among other things, *the amount of risk in the business is a most important factor*, as well as the locality where the business is conducted and *the rate expected and usually realized there upon investments of a somewhat similar nature with regard to the risk attending them*. There may be other matters which in some cases might also be properly taken into account in determining the rate which an investor might properly expect or hope to receive and which he would be entitled to without legislative interference. The less risk, the less right to any unusual returns upon the investments. One who invests his money in a business of a somewhat hazardous character is very properly held to have the right to a larger return without legislative interference, than can be obtained from an investment in Government bonds or other perfectly safe security²⁰

In its discussion of risk, the Supreme Court noted that the risk of Consolidated Gas Co. was reduced "almost to a minimum," since the company was "secure against competition under circumstances in which it is placed," and since it was almost unthinkable "that New York would permit its streets to be torn up again." Moreover, "it seems as certain as anything of such a nature can be, that the demand for gas will increase." Yet "there is a possible element of risk"; and the gas business is "inherently subject to many of the vicissitudes of manufacturing."²¹ On that basis, even as a conservative investment, the return was set at 6 per cent.

The principles governing "fair return" were elaborated in *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*:

A public utility is entitled to such rate as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economic management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market, and business conditions generally.²²

20. 212 U.S. at 48-49. (emphasis supplied).

21. *Id.* at 49.

22. 262 U.S. 679, 692-93 (1923) (emphasis supplied).

Bluefield clarified an ambiguity in the *Willcox* reference to the rate usually realized in the same locality "upon investments of a similar nature with regard to the risk attending them." The West Virginia state court had misapprehended *Willcox* as providing for a return "equivalent to that which is ordinarily received in the locality in which the business is done, upon capital invested in similar enterprises."²³ In the *Bluefield* opinion, the Supreme Court, reversing the West Virginia ruling, made clear that the comparison is to similar risks and not necessarily to similar enterprises. *Bluefield* also differed from *Willcox* in requiring returns equal to those being earned on corresponding risk: not merely in the same "locality" but in the "same general part of the country." This broadening of geographic reference reflects the broadened range of alternative investment opportunities. In both *Bluefield*, and its virtual companion case, the *Southwestern Bell Telephone* case,²⁴ Justice Brandeis disagreed with the "fair value" rate base requirements, but he concurred in both opinions on the ground that the commission order "prevents the utility from earning a fair return on the money prudently invested in it."²⁵

Although the *Hope Natural Gas* proceeding involved a deliberate assault on the fair value rate base doctrine, there was a general consensus that the *Bluefield* opinion fairly stated the elements of fair rate of return. This is made clear in the opinions of both the Federal Power Commission²⁶ and the court of appeals.²⁷ However, *Hope* wrought two modifications in the comparable-earnings principle: the more important is the concept that the return which must be commensurate with returns available elsewhere from corresponding risk is not the return on the entire investment in utility property ("rate base") but rather on the *equity* portion of investment (in effect, net worth of the com-

23. This language from *Coal & Coke Ry. v. Conley*, 67 W. Va. 129, 191, 67 S.E. 613, 640 (1910), was quoted in *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 89 W. Va. 736, 740 110 S.E. 205, 207 (1921), and the Court stated that 6% (exclusive of 2% for depreciation) was "as good or better than returns from most enterprises of a similar character."

24. *Missouri ex rel. Southwestern Bell Tel. Co. v. Public Serv. Comm'n*, 262 U.S. 276 (1923). *Southwestern Bell Telephone* was argued December 8, 1922, and decided May 21, 1923; *Bluefield* was argued January 22, 1923, and decided June 11, 1923.

25. 262 U.S. at 289; *id.* at 695.

26. *City of Cleveland v. Hope Natural Gas Co.*, 3 F.P.C. 150, 185 (1942):

Many factors enter into the determination of what constitutes a fair rate of return in each rate case. The Supreme Court has stated the principal factors in *Bluefield Water Works & Improvement Co. v. Publ. Serv. Comm.*, 262 U.S. 679, 692-3. They are that the return of a public utility shall be equal to that generally being made at the same time and in the same region on investments in other enterprises attended by corresponding risks and, that the return should be sufficient to assure confidence in the financial soundness of the utility and to maintain its credit and enable it to attract the capital necessary for the proper discharge of its public duties.

27. The court of appeals reversed the rate order for failure to ascertain a "fair value" rate base, but it affirmed 6½% as a reasonable rate of return, stating "There is no controversy as to the rule applicable in determining the rate" and quoting *Bluefield* verbatim. *Hope Natural Gas Co. v. FPC*, 134 F.2d 287, 303 (4th Cir. 1943).

pany). In this aspect of the *Hope* opinion, Justice Douglas departed from Justice Brandeis' 1923 concurring opinion in *Southwestern Bell*, which advocated a fixed rate of return to the equity investor ascertained as of the time capital was embarked in the utility enterprise. Justice Brandeis objected that if the fair value of assets increased over the initial investment the return on the initial investment would be enormous because the fixed cost of debt would not correspondingly increase to cover those assets financed by debt.²⁸ By separating the return to equity from the return to debt Justice Douglas avoided this difficulty. He followed Justice Brandeis' view that the interest on the debt portion of invested capital should be treated as a fixed cost, but he left the return required for equity to be determined in the light of current commensurate risks and changing conditions.²⁹ Although a varying allowance for the common equity component of investment is not a conventional fixed "cost," there has been no genuine difficulty, and only slight verbal difficulties of nomenclature, in treating a variable return for equity as part of an overall "capital cost" or "cost of service."

The other change wrought in *Hope* is the omission of *Bluefield's* reference that comparison be made with returns available in the same geographical part of the country. *Hope* thus broadened *Bluefield*, just as *Bluefield* had broadened locality-bound *Willcox*, in regard to the horizons of alternative investment opportunities. That *Hope* was a deliberate and careful adoption of the comparable-earnings principle is underscored by the improvements and refinements that were made.

B. *Earnings Comparable to What?*

The contention is sometimes made that the comparable-earnings standard entails insuperable difficulties of finding unregulated business enterprises of approximately equal risks to the regulated utility, particularly in regard to

28. 262 U.S. at 304-05. He used as an illustration a utility whose plant cost \$1,000,000 and which raised \$750,000 by bonds carrying 5% interest charge and \$250,000 by issuing stock at par. If ten years later the price level is 75% higher, and the interest rates are at 8%, it would be fantastic, he said, to require 8% on a reproduction cost of \$1,750,000. For that would yield the stockholders a net of \$102,500 or a return of 41% per annum on book value.

29. It may be doubted whether Justice Brandeis was wedded to the conception of a fixed cost of equity money. His 1923 concurring opinion was primarily concerned with debt and preferred stock securities, which accounted at that time for the bulk of investment in utilities, as reflecting a fixed "cost" to the utility. The "cost" concept was apparently extended to common stock as a matter of logic — following out the conception that there is a relatively fixed and ascertainable "cost" of capital and of service. American utility regulation has never followed the older British practice whereby stocks of public utility corporations were subject to a fixed maximum annual rate of dividends. Realistically, it may well be doubted whether there exists now or existed in 1923 a broad demand for the capital stock commitments without growth or protection. That Justice Brandeis was prepared to take judicial notice of current variations in a flexible rate of return on capital appears from his opinion of the previous year in *Galveston Elec. Co. v. City of Galveston*, 258 U.S. 388, 402 (1922), and from his actual 1923 votes, of concurrence, in both *Southwestern Bell Telephone* and *Bluefield*.

safety and cyclical behavior of earnings.³⁰ No utility, it is argued, protected against unrestricted entry into its field can have risks commensurate with unregulated business subject to full freedom of entry by new companies. Further, in the absence of similar risks, the standard is said to lapse for failure of an adequate basis of comparison.³¹

This restrictive notion of the risks which may be compared seems to be derived from the phrase "commensurate" or "corresponding" risks in the *Bluefield* opinion. It is submitted, however, that the Court in *Bluefield* was putting forward a more flexible and pragmatic standard. No company has a risk exactly corresponding to that of any other company; indeed, "each utility presents an individual problem."³² That the *Bluefield* Court thought that a comparison of companies within a relatively wide range of risk with appropriate adjustments is proper is confirmed by its exclusion from comparison only of "highly profitable or speculative ventures."³³

Furthermore, *Willcox* and *Lincoln Gas Co. v. Lincoln*³⁴ support the proposition that the comparable-earnings standard embraces the use of enterprises of different risk, with adjustments for differences in risk. In *Willcox*, as already noted, 6 per cent was found appropriate for Consolidated Gas, on the ground that as a private manufacturing enterprise, however conservative, it had some inescapable risk.³⁵ Judge Hough, the trial judge, described the 6 per cent rate as "sufficiently above the local mortgage market, to compensate for the additional and noninsurable hazard."³⁶ The extent of practical judgment

30. This is Dr. Bonbright's view, underlying his conclusion that this standard is to be accorded only lip service and is merely ancillary to the attraction-of-capital standard. See Dr. Bonbright's presentation, December 13, 1962, to Federal Communications Commission General Meeting on Bell System Rates; also see BONBRIGHT, *PRINCIPLES OF PUBLIC UTILITY RATES* 258 (1961).

31. *E.g.*, *In re Chesapeake & Potomac Tel. Co.*, Formal Case 494, PUC Docket 3718, District of Columbia Public Utilities Commission Order No. 4887, Dec. 22, 1964. The Commission said (mimeo, p. 28):

We agree . . . that the comparable earnings test is important in determining the return allowable to the equity investors. But the Commission concludes that this witness did not pursue persuasive procedures for showing comparability. *** The comparability comes from a comparison of companies of *similar risks*, be they regulated or unregulated. (Emphasis in original.)

32. *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 692 (1923). For the same statement see *Driscoll v. Edison Light & Power Co.*, 307 U.S. 104, 119 (1939); *Willcox v. Consolidated Gas Co.*, 212 U.S. 19, 48 (1909).

33. 262 U.S. at 693. That exclusionary reference reinforces the conclusion that comparison with non-regulated enterprise was intended by the comparison with "investments in other business undertakings which are attended by corresponding risks and uncertainties." That language must be read in the light of *Lincoln Gas*, which, it may be noted, was quoted at length in *Bluefield* albeit on another point.

34. 250 U.S. 256 (1919).

35. See discussion of *Willcox*, *supra* notes 16-19 and accompanying text.

36. *Consolidated Gas Co. v. City of New York*, 157 Fed. 849, 870-71 (C.C.S.D.N.Y. 1907), *rev'd on other grounds sub nom. Willcox v. Consolidated Gas Co.*, 212 U.S. 19 (1909).

used in making the comparison is brought out by the unpublished opinion on reconsideration in which Judge Hough stated that he arrived at a 6 per cent rate "in part by taking judicial cognizance of local business conditions."³⁷

In the *Lincoln Gas* case the Supreme Court rejected the notion advanced by the master that returns on non-regulated companies should not be taken into account. In rebuttal to the company's contention that it required more than a 6 per cent rate of return, the City of Lincoln advanced material to indicate that Lincoln Gas and similar companies were doing well because they were insulated from the normal fluctuation of the economic cycle.³⁸ The company countered that under competition from electricity, gas was being "driven from the parlor to the kitchen," and noted that Lincoln offered no industrial market, had a population increasing only slowly, and had indicated its hostility to the company's franchise. A major part of the proof offered by the company was testimony as to the returns anticipated and available from non-regulated enterprises, testimony that described a range of risks — in increasing order — as mortgages well secured (6-7 per cent), banking and merchandising (8-12 per cent), and manufacturing businesses (15-20 per cent).³⁹ The City of Lincoln introduced no evidence as to returns prevailing in Lincoln in other enterprises. In a section dealing with the company's contention as to returns available in Lincoln the report of the special master stated:

There is, however, in all these lines free competition and hazards from which a utility corporation is exempt. Banks fail, merchants go to the wall, but if any honestly capitalized and conducted gas, water and electric company having a monopoly in the community which it serves has become bankrupt the fact has escaped my notice. The profits of such corporations may not be large but they are virtually guaranteed profits and I cannot believe that a rate of not lower than 6 per cent upon their invested capital could be regarded as confiscatory. There is evidence in the record indicating that plaintiff regards investments in the stock of these corporations as especially desirable.⁴⁰

The Supreme Court addressed itself to this contention — that utility monopolies are inherently not comparable to businesses under free competition — in the opinion of Mr. Justice Pitney:

We cannot approve the finding that no rate yielding as much as 6 per cent. upon the invested capital could be regarded as confiscatory, in view of the undisputed evidence, accepted by the master, that 8 per cent. was the lowest rate sought and generally obtained as a return upon capital invested in banking, merchandising, and other businesses in the vicinity;

37. Record on Appeal, p. 428, *id.*

38. See generally Record on Appeal, *Lincoln Gas Co. v. Lincoln*, 250 U.S. 256 (1919).

39. The roll of witnesses included bankers, general merchants, an automobile dealer, a wholesale grocer, a door and sash manufacturer, a building and loan official formerly in a street railway enterprise, and the president of the local telephone company. Record, p. 576, *id.* The lowest returns appeared in the testimony of a banker that an 8% return on investment was the minimum contemplated for capital in "general manufacturing and commercial enterprise." The other witnesses testified to 10% or more.

40. Record on Appeal, pp. 54-55, *id.*

7 per cent. being the "legal rate" of interest in Nebraska. Complainant had not such a monopoly nor were its profits "virtually guaranteed" in such a sense as to permit the public authorities to restrict it to a return of 6 per cent. upon its invested capital.⁴¹

Not only may the difficulties of finding non-regulated enterprises of corresponding risk be finessed by taking unregulated businesses of different risk and by making practical adjustments for differences in risk with the exercise of judgment, but the comparable-earnings test also permits the use of groups of other companies, rather than individual companies, for purposes of providing a comparison of range of returns. Thus, Justice Stone referred to yields of industrial corporations generally, in both his dissent in *West v. Chesapeake & Potomac Tel. Co.*,⁴² and in his majority opinion in *FPC v. Natural Gas Pipeline Co.*⁴³ In the *Chesapeake* opinion Justice Stone said, citing *Bluefield*, that there was no proof to show that a return of 4.5 per cent was so out of line with current yields on invested capital as to be confiscatory, and he cited, among other things, the evidence of the Maryland Commission that both railroads and ordinary corporations listed on the stock exchange averaged less than 4 per cent on their invested capital.⁴⁴ In his opinion in the *Natural Gas Pipeline Co.* case, upholding the 6½ per cent rate of return which the Federal Power Commission had characterized as a "generous allowance," Chief Justice Stone stressed the company's relative well-being, and pointed out that the evidence showed that between 1929 and 1938 profits of industrials declined from 11.3 to 5.1 per cent on invested capital, with utilities declining from 7.2 to 5.1 per cent, and railroads from 6.4 to 2.3 per cent.⁴⁵ Similar data were introduced in the record of *Hope* by the staff of the Federal Power Commission.

Of course, such broad comparisons with all industrials were only preliminary soundings. It is difficult, for example, with such comparisons to know how the commission is to account for the earnings, which come to these industrials through the efficiency of management. But Justice Stone's comparisons estab-

41. 250 U.S. at 267. The significance of this pronouncement is not undermined by the Court's action in dismissing the complaint on the ground that the utility during the past period there involved, had actually realized a rate of return in excess of the 6% contemplated.

As the record, despite the protracted litigation involving two trips to the Supreme Court, was still insufficient to establish precisely what rate of return the company was earning and as the Court was convinced the return was at least 7%, the Court apparently felt that no useful purpose would be served by returning the case for yet another hearing. It contented itself with holding that "the ordinance was not shown to have been confiscatory in its effect." *Id.* at 268.

However, the Court gave leave to resubmit for consideration of the substantial war and post-war increases in prices and capital returns. This virtual invitation to seek increases in permitted rate of return, was accepted by the Bluefield Water Works and Improvement Co.

42. 295 U.S. 662, 680 (1935).

43. 315 U.S. 575 (1942).

44. 295 U.S. at 682-83.

45. 315 U.S. at 596-97.

lish the principle and pave the way for the use of further refinements to define more narrowly the comparison range of returns. The *Hope* decision itself narrows the differential between utilities and industrials since it focuses on the risk for the equity portion of investment. Utilities are closer to industrial companies in the risk assignable to equity than in the risk of the entire business, since utility equity is subordinate to a larger proportion of debt and fixed charges.⁴⁶ Moreover, now that *Hope* permits commissions to focus on return on invested capital, and in particular the equity portion thereof, the process of comparison with the earnings of non-regulated companies has become simpler since standard works provide such data for non-regulated companies.⁴⁷ Prior to *Hope* elaborate adjustments in the available data were necessary in order to make meaningful comparison with the earnings of industrial companies.

Although the comparable-earnings principle contemplates comparison with non-regulated enterprises it also permits comparison with other regulated business. As already noted, Justice Stone referred to the general data for utilities and railroads. The *Hope* record contains data on comparative risk of regulated businesses. The Federal Power Commission's order of rate reduction was based on a return of 6½ per cent of investment rate base.⁴⁸ The record further shows that the commission, while rejecting the 8 per cent return rate put forward by *Hope*'s witnesses, did not dispute their opinions concerning the relative risks of the natural gas industry.⁴⁹

The commission noted that the record contained, *inter alia*, "investors' appraisal of the natural gas industry, comparative risk data, interest rates and yields on securities of natural gas and electric utilities." Commission witness Knapp, whose exhibits were the principal foundation of the commission's find-

46. The permitted reliance in *Hope* on the figure assigned to net investment in the company's account books would seem to make a fairly broad range of comparisons essential since any given non-regulated company's net investment figure may, because of its accounting practices, be atypical and perhaps unrealistic.

47. The Government's brief in *Hope* advocating use of investment rate base stressed that it was adapted to modern business practices, stating: "The investment basis is the standard accounting practice used by business institutions in reporting their financial transactions to stockholders, banks and other interested parties." Brief for the Petitioner, p. 67, *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

48. *City of Cleveland v. Hope Natural Gas Co.*, 3 F.P.C. 150 (1942). The 6½% rate was approved by both courts with special reference to the company's established markets, financial record, and affiliations (as a subsidiary of Standard Oil Co. of New Jersey).

49. *Hope*'s financial witness Coffman concluded from statistical earnings-price data (based on current market for debt and equity securities) that investors appraised the risk for natural gas companies 1% higher than for manufactured gas companies, and 2% higher than for electric and water utilities. Financial witness Brown concluded that the earning-price data of natural gas securities, including a recent large public financing, established an 8% figure as appropriate for the industry. He contended that investors viewed the natural gas industry as more akin to industry generally than other utilities in terms of risk, in view of dependence on industrial consumers and of uncertainty of supply and he discounted the special favorable circumstances of the *Hope* company as of only minor consequence.

ings, said that he had included a section on comparative risk "because risk is a fundamental factor in ascertaining rate of return, and in order to present data for measuring the impact of risks confronting public utilities and other enterprises from the standpoint of stability of earnings."⁵⁰ Knapp's testimony on comparative risk tended to corroborate the conclusions of greater risk of natural gas companies, and the government's Supreme Court brief emphasized that the 6½ per cent FPC return was more liberal than the return it allowed to electric utilities.⁵¹

Thus rather than demanding that the comparable earnings looked to be those only of companies with similar risks, the cases allow, and indeed encourage, a broad comparison of the risks of both regulated and non-regulated companies with appropriate adjustments for the differences involved. The extent to which a commission should use comparisons with regulated as opposed to unregulated companies will be considered in the concluding section.

C. Case Law Intertwining Comparable Earnings and Attraction of Capital

The purpose of looking to comparable earnings is twofold; the cases offer both economic reasons and legal reasons. That regulation is economically to take the place of competition and that returns to regulated industry should be comparable with those to unregulated are expressed in Learned Hand's philosophy and approach to "fair rate of return":

The recurrent appeal to a just rate and a fair value assumes that the effort is to insure such a profit as would induce the venture originally

50. Record on Appeal, p. 429, *id.* FPC v. Hope Natural Gas Co., *supra*, note 47. Knapp's charts on the relationship of net profit to total invested capital showed that for 1930-1939 the average percentage of utility profit (5.5%) was approximately equal to the industrial average (5.59%) and considerably higher than the railroad average (3.17%), and had showed less decline.

Net profit was defined as the amount available for fixed charges after depreciation. One chart considered invested capital as representing outstanding securities plus surplus and capital reserves. Another chart was prepared representing invested capital as the total of property accounts plus inventories of materials and supplies. The charts showed similar results for the different types of companies, though the percentages, of course, differed.

Knapp next found that natural gas companies showed greater variation than electric companies in regard to indices of earnings (available for dividends and surplus), but concluded that the data "furnish ample indication that the risks confronting the natural gas industry have not deprived it of an opportunity to achieve substantial growth in recent years." *Id.* at 431.

The *Hope* record comparisons were of rate of earnings on total invested capital. In view of the *Hope* opinion subsequent comparisons would obviously use an index relating the profits available for equity to the net worth of the equity interest.

51. Brief for Petitioner, p. 32, FPC v. Hope Natural Gas Co., 320 U.S. 591 (1944):

The Commission allowed Hope a return of 6½% upon its rate base. [Record, Vol. I, p. 4]. This is to be contrasted with the 5½% return allowed by the Commission to electric utilities (Chicago District Electric Gen. Co., 2 F.P.C. Rep. 412 (1941), and the even lower rate of 5% allowed by the Illinois State Commission . . . In the acoustics of such liberality, the cries of confiscation ring hollow indeed.

and that the public will keep its faith so impliedly given. That, I think, involves a tacit comparison of the profit possible under the rate with profits available elsewhere; *i.e.*, under those competitive enterprises which offer an alternative investment. The implication is that the original adventurer would compare future rates, varying as they would with the going profit, and would find them enough, but no more than enough, to induce him to choose this investment. By insuring such a return it is assumed that the supply of capital will be secured necessary to the public service. As the profits in the supposed alternative investment will themselves vary, so it is assumed to be a condition of the investors' bargain that their profit shall measurably follow the general rates.⁵²

The purpose of attracting capital, it will be noted, is inherent in this statement of the comparable-earnings standard, but the means of attracting capital is by providing comparable earnings and not by any recourse to the price of securities. Secondly, the emphasis is not solely on attracting new capital but rests equally on a concept of fairness to the old capital — on the public's keeping its faith impliedly given.

The two conceptions are obviously intertwined. As Justice Brandeis points out elsewhere, a continuous inflow of new capital is necessary in a business and "such an inflow of capital can only be assured by treatment of capital already invested which will invite and encourage further investment."⁵³ Courts frequently analyze the Constitution as recognizing that the investor receive compensation for the use of his capital and for the risk in which it is placed. Justice Brandeis describes it thus:

The compensation which the Constitution guarantees an opportunity to earn is the reasonable cost of conducting the business. Cost includes not only operating expenses, but also capital charges. Capital charges cover the allowance, by way of interest, for the use of the capital, whatever the nature of the security issued therefor; the allowance for risk incurred; and enough more to attract capital. The reasonable rate to be prescribed by a commission may allow an efficiently managed utility much more. But a rate is constitutionally compensatory, if it allows to the utility the opportunity to earn the cost of the service as thus defined.⁵⁴

Or as Judge Hough describes it in the *Willcox* case:

An interest in the gas business of this city is as nearly a conservative investment as any private manufacturing enterprise can furnish, and, although each case depends upon its special facts, there is, after problem conditions are ascertained, one question that can always be asked: What would that prudent man acquainted with business (so familiar to the readers of legal literature) do regarding such an investment, if it were offered to him? I think he would take it, not with enthusiasm but as fairly safe local property, promising a rate of return sufficiently above the local

52. Consolidated Gas Co. v. Newton, 267 Fed. 231, 237 (S.D.N.Y. 1920).

53. St. Louis & O'Fallion Ry. v. United States, 279 U.S. 461, 502 (1929) (dissenting opinion).

54. Missouri *ex rel.* Southwestern Bell Tel. Co. v. Public Serv. Comm'n, 262 U.S. 276, 291 (1923) (concurring opinion).

mortgage market, to compensate for the additional and noninsurable hazard.⁵⁵

Thus, in the economic analysis of the courts the notion is that that rate is compensatory which under competition would be received for the same risk. And it is almost always assumed that comparable earnings is what will be looked to to discover this rate. Attraction of capital is frequently mentioned, but not as the ultimate goal, rather as something which will necessarily follow if a comparable rate is paid. The opinions give no indication either that new capital is to be attracted at all costs, or that a formula which claims that new capital can be attracted at low rate in view of high stock market prices is a constitutionally sound one or satisfies minimum requirements of fairness to existing investors.

The non-economic analysis in the opinions supports the proposition that the key to constitutional rates is founded in notions of fairness to existing investors. Thus Justice Brandeis speaks of a tacit regulatory agreement between the state and the investors:

The investor agrees, by embarking capital in a utility, that its charges to the public shall be reasonable. His company is the substitute for the State in the performance of the public service; thus becoming a public servant.⁵⁶

Justice Holmes also characterized regulation as a fair bargain, steering a middle course between confiscation and untrammelled extortion by monopoly power.⁵⁷

The early cases which established the principle of judicial review of rate making rested on both the due process and equal protection notions that a state may not forbid utilities the right to make a fair return when other lawful businesses are accorded the opportunity to receive reasonable profits on invested capital.⁵⁸ To this concept of comparable fairness Judge Hough's opinion in the *Willcox* case added the above-quoted notion of the prudent investor and, in his supplemental unpublished opinion, the following language concerning to whom the rule must be fair:

It has not been asserted and it is not believed that 6 per cent is a profitable, satisfactory and attractive rate in a gas business. In my opinion it is none of these things, but it is *the lowest rate* which in the City of New York can be considered legislatively fair to those who are already engaged therein and cannot readily escape.⁵⁹

55. Consolidated Gas Co. v. City of New York, 157 Fed. 849, 871 (C.C.S.D.N.Y. 1907), *rev'd on other grounds sub nom.* Willcox v. Consolidated Gas Co., 212 U.S. 19 (1909).

56. 262 U.S. at 290-91.

57. Cedar Rapids Gas Light Co. v. City of Cedar Rapids, 223 U.S. 655 (1912).

58. Smyth v. Ames, 169 U.S. 466, 526 (1898); Reagan v. Farmers' Loan & Trust Co., 154 U.S. 362, 399 (1894); Chicago, St. Paul Ry. v. Minnesota, 134 U.S. 418, 458 (1890).

59. Transcript on Appeal, p. 428, Willcox v. Consolidated Gas Co., 212 U.S. 19 (1909) (emphasis supplied).

Fairness to existing investors then is the primary concept and attraction of new investors is a supplementary concept. That priority conforms to the order of presentation of the pertinent standards in both *Bluefield* and *Hope*. It is responsive to the essence of the proceeding, which is basically, of course, a determination of the return to be provided to the existing ownership.

Moreover, in some situations attraction of new capital may not even be a requisite standard. That apparently is the thought underlying Justice Brandeis' dissent in *United Rys. & Elec. Co. v. West*.⁶⁰ Apparently he considered the attraction of capital standard inapplicable either because the local transit company was not expanding and hence did not propose to "attract" new capital, and/or because the high rate needed to attract capital to this declining utility would violate the *Bluefield* prohibition against "speculative rates."⁶¹

III. COMPARABLE EARNINGS, ATTRACTION OF CAPITAL, AND THE WORKING COMMISSION ⁶²

Armed with further insight into the judicial references to attraction of new capital, we may now return to the difficulties encountered by regulatory com-

60. 280 U.S. 234, 255 (1930).

61. In *United Rys. v. West*, *supra* note 60, a fare order was overturned because the court found that the commission's fares provided a 6.26% return on fair value. The contention of the transit company that a 7-8% return would be needed to attract capital was not disputed by People's counsel who brought out, however, that no capital expansion was in prospect. People's counsel and the state commission admitted that the business was risky due to automobile competition but relied on the comparable earnings standard, stressing that the other electric street railways earned the same or a lower rate of return on fair value. The state court stated that the competition of private autos was no reason to raise fares so high as to induce investors to purchase the company's stock as a speculative venture. *West v. United Rys. & Elec. Co. of Baltimore*, 155 Md. 572, 142 Atl. 870 (1928). The Supreme Court held the 6.26% return confiscatory because it was inadequate to attract capital. Justice Brandeis in dissent stated that ". . . 6.26 per cent. upon the present value of the property of a street railway enjoying a monopoly in one of the oldest, largest and richest cities on the Atlantic Seaboard would seem to be compensatory." 280 U.S. at 255.

62. The analysis offered in this concluding section is oriented to a commission regulating a utility by reference to a fair return on investment rate base. However, the same analysis applies to a commission using a fair value rate base. The usefulness of the analysis is further enhanced by the fact that even commissions using other techniques as working tools do and perhaps must refer back to rate base analysis as a point of departure and as a test check. See *City of Detroit v. FPC*, 230 F.2d 810, 817-18 (D.C. Cir. 1910), *cert. denied*, 352 U.S. 829 (1956), holding that the commission cannot use fair field price valuation of a pipeline company's gas reserves rather than cost, as an encouragement to pipeline company exploration, without assuring itself that the increase over net investment base "is in fact, needed, and is no more than is needed, for the purpose" and *Bebchick v. Public Util. Comm'n*, 318 F.2d 187 (D.C. Cir. 1963) referring to ascertaining rate of return on investment rate base as a test check on the return yielded by the operating ratio method (in essence an allowance of percentage of operating expense). The use of such a check is particularly significant since the underlying congressional statute seems to have contemplated a definite shift from the rate base method to the operating ratio method, coincident with the accomplishment of the company's shift from (high-investment) street car to (low-investment) bus operation.

missions which have relied solely on the earnings-price ratio, a formula which is directed exclusively to attraction of new capital. The principal justification for reference to the market prices of a utility's securities is presumably that these prices reflect a comparison made by the investing public with the risks and returns available from other alternative stock investments. The securities markets have something of the lure of Adam Smith's "invisible hand" regulating commodity prices under the pressure of competition. But securities market prices are unstable and reflect many non-rational pulls.⁶³ Though securities prices may be useful, if considered with judgment, the rapid gyrations and broad swings in securities prices (and in the ratios thereof accounted for by current dividends and earnings) minimize confidence in any regulatory program that focuses on them as the principal or the exclusive guide to determining a fair return.

Moreover, since the most important risk to the investor is the risk as to the attitude of the regulatory commission, current security prices inevitably reflect projections not only of future physical and general economic developments of the utility and its area, but also of the anticipated rulings of the commission. For the commission to "rely" on such anticipations is palpably circular reasoning, of the kind criticized by Justice Douglas in *Hope*.⁶⁴ Commissions and investors cannot sensibly continue to look behind one another like endless images in multiple mirrors.

If the securities prices are broadened to include other utilities and utilities in other jurisdictions, the problem of determining which are comparable securities is a problem of comparison like that encountered with the comparable-earnings standard, though different in degree. Moreover, the problem of circularity of reasoning remains, though the circle is broadened. The regulators are setting returns on the basis of what new investors are paying, while in turn the investors' prices reflect their forecasts of the returns the regulators will be setting.

If the capital-attracting rate may be derived from concurrent earnings-price ratios that rate should, in theory, be applicable to rate base, say, net worth, to achieve permitted return to equity. If the utility stock rises in price, the ratio becomes smaller and the earnings of the company should come down. Investors would be struck with utter amazement that their current high prices should for

63. As early as the *Willcox* case Judge Hough dismissed the use of securities as reflecting "the vagaries of speculation, or reflections of the necessities of borrowers on collateral, and not facts useful in an investigation such as this." 157 Fed. at 870. Judge Hough's awareness of the "vagaries of speculation" was certainly not dulled by the then recent financial panic of 1907 and the speculative market in the outcome of the very case under consideration. This speculation in *Consolidated Gas v. Willcox* reached a fever pitch when the case was under consideration by the Supreme Court; the stock rose 20 points in the two months prior to the decision, showing a particular proclivity to rise on Mondays when the Supreme Court announces its decisions. See N.Y. World, January 5, 1909, p. 1; N.Y. Times, January 5, 1909, pp. 1 & 3. The decision set the stock plummeting from the 160's to the 120's.

64. See note 10 *supra*.

one moment be taken as justifying a reduction in rate of return on net worth. Indeed such misunderstanding by regulators of economic realities would likely plummet utility security prices to below book value.

The difficulties inherent in the use of stock prices as the denominator in a rate of return do not lie only in the danger that the investors and the commissions will play leap frog with each other; other elements which influence stock prices make them a most elusive standard. There are, for example, some analysts⁶⁵ whose approach is rooted in the conception that utility investors are wholly or at least primarily interested in stable dividends, and in their studies concurrent dividend-price ratios are the key to the cost of equity, with an extra allowance in earnings being provided only so that such stable dividends can be achieved from current earnings after application of a reasonable pay-out ratio. Such an approach may have validity under an assumption of stagnant economic conditions or if for some reason the company's retained earnings will never flow to the stockholders,⁶⁶ but under modern conditions the evidence seems clear that the market valuation reflects net earnings whether retained or distributed.⁶⁷ In fact, in view of the favorable tax treatment of capital gains, security prices are particularly responsive to anticipation of capital increment.⁶⁸

The picture of today's capital costs must not be taken with a camera the fixed focal length of which was set some time ago. Today's conditions are marked not only by emphasis on earnings rather than dividends but also by awareness of growth in earnings. Most authorities have come to appreciate that earnings-price ratios have greater significance than dividend-price ratios,⁶⁹ but few have expressly taken into account the fact that the same amount of earnings in a recent past period obviously has more appeal to investors if it represents a growth in earnings than if it represents a uniform earnings rate. There is evidence of a strong positive correlation between high price-earnings multiples and recent growth rates for utility stocks as well as for industrials.⁷⁰ Regulation of utilities might indeed be simpler if investors were not anticipat-

65. See, e.g., Clemens, *Some Aspects of the Rate-of-Return Problem*, 30 LAND ECON. 32 (1954).

66. Such a case might arise if the company followed a persistent practice of write-offs or reserves. Even in this case the stockholder's ultimate equity would contain these earnings if the company were sold or dissolved.

67. See Morrissey, *Current Aspects of the Cost of Capital to Utilities*, 62 PUB. UTIL. FOR. 217 (1958).

68. This can most readily be tested in the bond markets. By recourse to his financial page, and comparing the effective interest rate of the different bond issues of, say, AT&T, or government bonds, the reader can readily see that generally bonds selling at a discount carry not only a lower nominal interest rate but also a lower effective interest rate. The advantage lies with the bond where return can be realized in part as a capital gain by sale before maturity.

69. See BONBRIGHT, *op. cit. supra* note 30, at 250.

70. Such a correlation was found in studies of Dr. Irwin Friend presented to the Federal Communications Commission in 1960. Applicant's exhibits 20, 20a, 20b, 20c, *In re Chesapeake & Potomac Tel. Co.*, District of Columbia P.U.C., Formal Case 494, p. 253.

ing growth, but granted the anticipation of growth — and we are discussing regulation of utilities in a growth economy — it would be absurd and unrealistic to utilize securities prices and ratios calculable therefrom without attentive consideration to the fact of such anticipation of growth.⁷¹

With simplifying assumptions of a stable earnings-price ratio and stable payout ratio, it is mathematically sound to express the capital-attracting rate for equity as equal to anticipated immediate yield, *i.e.*, dividend-price ratio (also expressible as the product of the earnings-price and payout ratios) plus the anticipated growth rate in earnings per share.⁷² Even applying this simplified approach requires the exercise of judgment with perhaps a direct effort to ascertain investor anticipation, say, from market literature. If commissions dispute or reject the simplifying assumptions, there is need for even more judgment in the utilization of securities prices, since a conclusion must be reached as to the direction, extent and timing of anticipated changes in earnings-price ratios.

The element of capital appreciation in securities prices anticipated by investors depends not only on increase in earnings due to use of retained earnings, and possibly higher earnings rate on investment and net worth, but also to the increase in book value per share coincident with sales of new stock at prices above book value.⁷³ It is possible to develop a formula so as to express the return on equity that will correspond to assumptions of growth in earnings

71. The drop in current earnings-price and dividend-price ratios to levels below debt costs and even Government debt costs, high-lights even more than in previous years the need for the careful use and interpretation of these ratios in determining equity costs . . . The fact that current . . . ratios have been trending downward since 1950 in the face of rising interest rates made this Committee sound notes of caution on the use of these ratios in previous reports. With these ratios now below bond costs, your Committee's prior warnings have indeed been justified. It is clear that equity investors are not buying stocks for current yields but rather in anticipation of future increases in earnings, dividends, and prices . . .

REPORT OF THE COMMITTEE ON CORPORATE FINANCE OF THE NATIONAL ASS'N OF R.R. UTILITIES COMM'RS [NARUC] 10 (1959).

72. This formula is a tautology, but is a correct tautology. For the analysis herein I have borrowed freely from the testimony of Dr. Irwin Friend before the FCC and the D.C.P.U.C., *supra* note 69.

Theoretically this formula, with its assumption of stability in the indicated factors, involves an underlying mathematical assumption that they will continue in perpetuity. But if it is anticipated that the factors will continue for a reasonable period of time and change moderately rather than drastically the calculation is not materially affected. For example, an acceptance of a dividend yield of 3.6% with anticipated growth rate of 5% calculates to a cost of equity of 8.6%. If it were anticipated that the growth rate were to change at the end of fifteen years from 5% to 4%, the applicable formula would result in a cost of equity of 8.2%. Of course, if it were anticipated that the growth rate would terminate completely and be replaced by a static level of earnings, the cost of equity would be substantially reduced.

73. GRAHAM, DODD & COTTE, *SECURITY ANALYSIS PRINCIPLES AND TECHNIQUES* 598 (4th ed. 1962); "In a period of expansion, the sale of new stock at a price premium is a very important factor in achieving these earnings growths."

from both reinvestment of earnings and issuance of shares at a premium above book, and that will permit increase in dividends per share without dilution of surplus.⁷⁴ This approach, in effect based on a compound interest formula, depends on inputs which can either be ascertained for past periods or inserted on an assumption of the reasonableness of increase in dividends per share, and of the market premium above book value per share. But the formula does not supply the answer to the key question as to the market's anticipation and hence valuation of earnings under assumed growth conditions. Hence, it is not a measurement of the current requirements for attraction of capital.

After considerable reflection, Professor Bonbright came, in his 1961 treatise, to the conclusion that since the estimating of current costs of equity capital through earnings-price ratios does not adequately reflect the real key to market prices, namely anticipated rates of earnings, the only cost of equity capital that can be determined with confidence is a partial cost. The extent of the deficiency is a matter of surmise, and the minimum estimated cost must be "subject to a material, 'judgment reached' enhancement in order to give reasonable assurance of full cost coverage."⁷⁵

Regulatory commissions have, in fact, at least in the past decade, been applying substantial increases above the returns indicated by the capital-attracting testimony based on concurrent earnings-price ratios that came into prominent use after *Hope*.⁷⁶ Sometimes particular factors have been seized on as justifying the increment.⁷⁷ More often the commission has merely recognized the

74. See Colbert, *Common Stock Earnings Allowance for Utilities as Adjusted for Growth*, 39 LAND ECON. 44 (1963).

75. BONBRIGHT, *op. cit. supra* note 30, at 254. Dr. Bonbright's treatise further states that in the interest of long-run corporate ability to meet capital requirements commissions should allow "a rate of return, during periods of business prosperity, liberal enough to let utility equities command substantial premiums over their book values," with the proper degree of liberality remaining an open question. *Id.* at 256.

See also GARFIELD & LOVEJOY, PUBLIC UTILITY ECONOMICS 125-28, (1964) for an analysis of the difficulties inherent in the use of earnings-price ratio (or dividend-price ratio) as an indicator of cost of equity capital, and of the large areas of judgment involved in adjustments proposed to make these indicators more serviceable.

76. Even the FPC's 1952 *Northern Natural* and *Colorado Interstate* cases, set out in footnotes 13, 14 *supra*, which come closest to a mechanical application of earnings-price ratios, were able to manage the use of this approach by relying less on current data than on the averages embracing the early postwar years with their higher earnings-price ratios.

77. The change of administration may have been the principal reason for the shift from the FPC's 1952 to 1953-54 decisions, but the realities of the times were also involved in the departure from the more rigid cost of money approach.

In *United Fuel Gas Co.*, 12 F.P.C. 251, 266-71 (1953), the FPC granted this subsidiary of Columbia Gas a 6½% rate of return. The staff recommended a 6% rate as sufficient in view of the resulting return of 9.6% on equity. The FPC noted that monthly earnings-price ratios of Columbia ranged from a high of 12.9% in February, 1948 to a now of 6.3% in August, 1952, and averaged 9.0% over 1948-1952. On a post-hearing offering in May 1953, the ratio was 6.9%. The monthly earnings-price ratios of eight natural gas stocks on national exchanges ranged from a high of 9.3% in June 1949, to a

necessity of the application of generous "judgment" to the raw earnings-price data.⁷⁸ I offer the hypothesis that what has transpired is that commissions, without expressly or even consciously invoking a comparable-earnings standard, have in fact used their own rough-and-ready awareness of comparable

low of 6% in March 1952, averaging 7.7% for 1948-1952. The FPC, citing the *Northern Natural* decision (see note 13 *supra*) said that its responsibility cannot "be discharged properly through the mere application of a strict cost-of-money formula to produce the minimum return which might be nonconfiscatory; rather we must exercise a fair and enlightened judgment having due regard for all relevant facts." 12 F.P.C. at 269. The FPC observed that Columbia's earnings per share had been declining. It stressed that Columbia had only a 54.5% debt ratio, stating: "Columbia has resisted the lure of an undue thinning of the equity and has maintained a conservative capital structure. Return should be sufficient to encourage continuation of this practice." 12 F.P.C. at 270.

In *El Paso Natural Gas Co.*, 13 F.P.C. 421 (1954), the FPC granted *El Paso* a 6½% rate of return — resulting in a 14.4% return of equity. 13 F.P.C. at 443-44. The only data referred to by FPC fell far short of this figure. These were as follows: The earnings-price data for the 8 natural gas companies averaged under 8% since 1945, ranged from a high of 9.9%, in February 1948, to 6%, in March 1952, and stood at 7.1% in December 1953, the latest date in the record. The earnings-price ratios of *El Paso* common stock averaged 8.9% since 1946, and 8.5% for 1952. The FPC noted that *El Paso's* common equity was very thin (21%) though broader than it had been, and said: "The rate of return which we herein allow to *El Paso* should permit and encourage it to make further improvements in its capital structure." 13 F.P.C. at 444.

Thus Columbia was rewarded for its conservative 54% equity, and for having "resisted the lure" of thinning the equity, and *El Paso* was given a favorable rate as an inducement to broaden its thin 21% common equity.

78. In *Colorado Interstate Gas Co.*, 19 F.P.C. 1012, (1958), the FPC approved a 6% rate of return overall which resulted in a 12.29% return on common equity. The FPC noted that the company, favorably situated as to reserves, had sold its common stock at a 7% earnings-price ratio, and stated: "The generous margin over the 'bare bones' cost of money will be sufficient to compensate for any possible overvaluing of the stock on the part of investors believing that field price would be used in fixing *Colorado Interstate's* rates." 19 F.P.C. at 1024.

In *Tennessee Gas Transmission Co.*, 24 F.P.C. 204 (1960), the commission granted a 6½% return, as allowing 10.12% on common equity. 19 F.P.C. at 209. The FPC reiterated "the commission's practice of using earnings-price ratios, with judgment, as an indication of a proper return on common equity." 24 F.P.C. at 207. The earnings-price ratios data cited by FPC were as follows: The ratio for Tennessee averaged 5.8% for 1955-1959, 6.2% for 1953-1959, and 6.6% for 1948-1959. The ratios for 10 major natural gas pipeline companies comparable to Tennessee averaged 6.3% for 1955-1959, and 6.4% for 1953-1959. The "judgment" brought the allowance up from the 6-7% range of the earnings-price ratio to over 10%.

Tennessee argued that the average return on equity for pipeline companies over a period of years exceeded 10.12%. The FPC found that Tennessee was not an "average" company, but rather one of the strongest, and that it gave consideration to the evidence of return on book equity for these companies. This was affirmed as supported by the evidence, as was the FPC's notation that Tennessee cannot assume it or any other company is entitled to the same return as that historically enjoyed. *Tennessee Gas Transmission Co. v. FPC*, 293 F.2d 761, 765 (5th Cir. 1961), *rev'd on other grounds*, 371 U.S. 145 (1962). The Supreme Court, accepting the determination to a fair rate of return, reversed the lower court ruling that the commission lacked authority to issue an interim order reflecting the impact of said rate of return.

earnings available elsewhere as the principal component of the judgment that enhances return to equity substantially above the capitalization rates derived from concurrent earnings-price ratios. In any event, the regulatory process requires both further efforts to increase understanding of the role and significance of securities prices and further consideration of the application of the comparable-earnings principle.

In particular, some recent natural gas decisions of the Federal Power Commission suggest a trend toward a comparable-earnings standard approach, at least to the extent of moving away from the earnings-price ratio computations and toward emphasizing comparison with returns on equity earned by other natural gas companies as the basis of decision.⁷⁹ An express commission invocation of the comparable-earnings standard seems likely to materialize in the *Permian Basin Area Rate Proceeding*, the first Federal Power Commission proceeding for setting rates of natural gas producers on an area basis.⁸⁰

79. In *Panhandle Eastern Pipe Line Co.*, 25 F.P.C. 550 (1961), the commission did not even refer to earnings-price ratios. It allowed a 10.47% return on equity capital, in view of the recent allowance of returns ranging from 10.12 to 10.8% on equity for other pipe line companies, stating that these represented the FPC "judgment" as to the level of earnings required "to enable the pipeline industry to attract equity capital in the contemporary market." 25 F.P.C. at 551.

In *El Paso Natural Gas Co.*, 28 F.P.C. 688 (1962), ruling on four dockets, the FPC granted 6% and 6½% overall returns, and a range of 12-13% on equity. 28 F.P.C. at 701-02. Its critical paragraph stated:

The present record shows generally declining earnings-price ratios for the period 1951 to 1960. The average for the same ten major pipeline companies declined from 8.3 per cent in 1951 to 6.5 per cent in 1960 while El Paso's earnings-price ratio declined from 9.0 per cent to 6.5 per cent. For the 10-year period the group of pipelines averaged 6.9 per cent and El Paso 6.8 per cent. On the other hand the earnings on the book value of the common shares of the ten companies ranged from 15.8 per cent in 1951 to 13.9 per cent in 1960, averaging 14.1 per cent; El Paso's earnings ranged from 20.0 per cent in 1951 to 12.0 in 1958 and 16.7 in 1960, averaging 14.1 per cent. The proper return on common equity should fall between the earnings-price ratios and the earnings on book value, but would naturally lie much closer to the upper level of this range because its common equity is thin.

28 F.P.C. at 701.

I interpret this case as fundamentally an application of the comparable-earnings standard even though the commission stated that it was using earnings-price ratios "with judgment" (28 F.P.C. at 701) and stated as to the comparable-earnings standard:

As to the comparable risk approach, such comparisons are helpful as a guide but cannot provide a precise measure of rate of return for El Paso because no two pipelines are alike and other businesses differ greatly from a pipeline company that delivers a product essential to many customers.

28 F.P.C. at 692.

The commission referred disparagingly to the "comparable risk" standard and cited Bonbright's remarks (28 F.P.C. at 699, n. 12), presumably with approval, and presumably without awareness that the comparable-earnings standard contemplates comparison with situations of *different* risk, and the making of adjustments for the differences. See notes 34-51 *supra* and accompanying text.

80. F.P.C. Docket AR 61-1.

This was recognized from the outset as a precedent-making proceeding, intended to establish above all a workable approach to natural gas producer regulation.⁸¹ In hearings which lasted almost three years, numerous parties representing producer, distributor and consumer interests presented and elaborated many arguments.⁸² It speaks volumes that neither the producers, nor the commission's staff, nor the presiding examiner used the capital-attraction approach to rate of return. The presiding examiner's initial decision disposed of the capital-attraction standard by noting the difficulties inherent in determining investors' anticipations of future earnings adding that both the commission staff and the respondent had relied on comparable earnings to derive their rate of return.⁸³

In the *Permian Basin* proceeding the disputed issues on rate of return concerned techniques for application of the comparable-earnings standard. The staff presented an analysis of the returns for 1957-1961, selected as a representative period, of all oil and gas producers issuing public reports on earnings, and selling certain minimum volumes of interstate gas. The examiner determined to use the average return on capital realized by non-integrated producers (12 per cent) rather than the staff's recommendation (9.3 per cent) drawn from a broader list of producers dominated by the large integrated companies whose other activities (principally refining and transportation of petroleum products) the examiner considered to reflect a different quality of risk from the risk assignable to production activity.⁸⁴ The parties and the examiner were both using as comparisons the return of non-regulated companies, since the revenues of oil producers were admittedly not regulated.⁸⁵

The use of the petroleum industry itself for the application of the comparable-earnings standard avoided "the difficult problem of comparing the risks and earnings of other industry groups."⁸⁶ In other proceedings manifestly difficult problems would be involved in the use of earnings on net worth for other companies. If regulated companies are used, the commission is in effect using past judgments, either its own or other commissions'. Though this use at

81. See *Wisconsin v. FPC*, 373 U.S. 294 (1963).

82. See Leventhal, *Reviewing the Permian Basin Area Gas Price Hearings*, 73 *Pun. Util. Fort.* 19 (1964).

83. Presiding Examiner's Initial Decision, p. 45. *Permian Basin Area Rate Proceeding*, F.P.C. AR 61-1.

84. The intangible factors pertaining to gas exploration and production were examined and considered not to warrant returns above those earned by the oil and gas producers. *Id.* at 53.

85. Although gas producers were theoretically regulated since 1954, the revenues of the oil and gas producers reflected gas prices without regulation prior to 1954 and unilateral increases thereafter, some of which were refundable theoretically. Without setting any standards the FPC permitted gas prices at the well to rise between 1954 and 1960 from ten cents to fifteen cents per thousand cubic feet, both figures being a national average and approximate.

86. Presiding Examiner's Initial Decision, p. 47, *Permian Basin Area Rate Proceeding*, F.P.C. AR 61-1.

first blush seems to smack of circularity, it is not circular because the past judgments did not use nor did they attempt to forecast the present ones. Nor should the use of past judgments be condemned as an "abdication of responsibility" if rather than rigidly applying the percentage of earnings of one company, the commission considers many companies and group averages and applies the rates with appropriate analytical comparisons. The small danger of over-deference to past judgment would seem to be outweighed by the value of discovering whether and to what extent under conditions of return actually earned on net worth by other regulated companies, the regulated companies were successfully operated, expanded their service and did an adequate job in the public interest. A danger in the use of comparisons exclusively of regulated companies would seem to be that inbred commissions would, by successive stages, remove themselves from a comparison of competitive returns. Thus, even if the initial regulatory decisions were made by taking the comparable earnings of competitive companies, it would seem advisable for the commission to check subsequent results obtained from comparison with regulated companies against the ratios of unregulated companies. Should it appear that regulated companies are not thriving though they are receiving a return supposedly commensurate with that of their non-regulated brethren, then the commission must make the difficult judgment as to whether it wishes to subsidize the utility or allow the consequences of competition.

If unregulated companies are the benchmark then this issue arises: who is to say their profits are reasonable? But it should not be difficult, with judgment, to exclude the very profitable and speculative returns that are outside the range of returns appropriately considered for utility comparisons. The mainstream of returns may fairly be treated as reasonable not in some absolute sense but by the practical touchstone that they were the returns available under competition in a growth economy. Although the lower risks of the utilities may require an adjustment of the returns available for non-regulated companies, the need for and extent of such adjustments may well be exaggerated. There seems little merit in the idea that there is an impassable gulf or a hard and fast distinction between regulated and non-regulated companies, or that they are so inherently unlike that meaningful comparison is not possible, particularly when comparison is made of equity risk and not of overall company risk. There is an increasing awareness of the competition faced even by regulated utilities, and of the onset of obsolescence⁸⁷ facing both regulated and unregulated in-

87. The risk of obsolescence was considered in *Market St. Ry. v. R.R. Comm'n*, 324 U.S. 548, 566-67 (1945), which in effect applied the doctrine of *Covington & Lexington Turnpike Rd. Co. v. Sanford*, 164 U.S. 578 (1896), which held that a utility has no right to recover cost of service through rates unreasonably high in relation to the value of service. The *Hope* doctrine approving cost of service as a generally reasonable measure of regulation, was held inapplicable to a utility in a state of decline. Thus even where a declining business could enhance cash flow by charging cost of service, this course — which would, of course, be followed by a non-regulated company — may be improper for a regulated utility as representing an extortion from a hapless segment of the public.

dustries. Private competition from large consumers or groups of industrial companies, is also of undoubted significance.⁸⁸ On the other hand, such government actions as programs for combating unemployment and maintaining purchasing power during recessions, as well as direct government post-war demand have decreased the relative risks of non-utilities. Diversification by non-utilities (and even by some utilities) and the formation of conglomerate companies has spread and lessened risk. Of course, the trends suggesting that the risks of utilities are coming closer to the risks of non-regulated companies do not warrant the conclusion that the utilities' risks are as great. But the higher proportion of utility debt may mean that the risks to the equity of regulated and non-regulated companies are close, even though the overall risks differ.

Once the initial hurdle of comparing regulated to non-regulated companies is over, there still remains the problem of comparing the risks of the companies the data from which is introduced into evidence. This difficulty in applying the comparable-earnings standard must be met with a reasoned analysis and presentation of data.⁸⁹ The mere *ipse dixit* of a financial witness is not likely to receive careful consideration.⁹⁰ On the other hand, a commission attitude that

Thus utilities are less capable of coping with the risk of obsolescence and competition. Similarly, they have less freedom to drop unprofitable segments of business.

88. The Court has long noted that a utility, like a transit company faced with the private competition of automobiles, may be entitled to seek a higher return than an electric company enjoying a practical monopoly in its field. See *Wabash Valley Elec. Co. v. Young*, 287 U.S. 488, 502 (1933).

89. In one FPC proceeding a witness did use the returns available from non-regulated companies to define the "opportunity cost" of equity capital. *Natural Gas Pipeline Co. of America*, FPC Docket No. RP 61-8 (testimony of Walter H. Beidatsch). He also used earnings-price ratios, concluding that the average 6.9% earnings-price ratio should be translated into an allowance of 9.6% on venture capital, using judgment to consider amount of risk involved, on a subjective determination, and need for market price to reflect a substantial premium over book. He concluded that the comparable-earnings standard, and comparison with a segment of industrial companies, established an opportunity cost of equity capital in the range of 8.5% to 10%. He recommended a judgment figure of 10% as allowance for equity capital. The proceeding was settled and dismissed without a commission determination. Although my analysis has not been couched in terms of "opportunity cost" this is not to gainsay the significance and materiality of this conception. See, *e.g.*, SAMUELSON, *ECONOMICS* 458-59 (6th ed. 1964)

He [the economist] realizes that some of the most important costs attributable to doing one thing rather than another stem from the foregone opportunities that have to be sacrificed in doing this one thing. . . . This sacrifice of doing something else is called "opportunity cost." . . . For these reasons, full competitive cost intimately involves opportunity cost. The latter is an important concept, which covers much more territory than does the notion of implicit costs. . . . The terminology of economists is not uniform in this connection, but the concept of opportunity cost is important.

90. Compare Judge Wilbur's concurrence in *Los Angeles Gas & Elec. Corp. v. Railroad Comm'n*, 58 F.2d 256, 262 (S.D. Cal. 1932) (3-judge district court), disparaging "offhand testimony of financiers" that 8% represents the rate of return upon similar enterprises. 58 F.2d at 288.

the standard requires a strict demonstration that the comparative risks are similar would undercut recourse to the standard, since utilities tend to present individual problems. The judicious use of group data often provides a smoothing process which softens the effect of unusual individual situations while at the same time mitigating the argument that the use of the comparable-earnings test results in commission abdication. Taking into account the difficulties of applying the capital-attracting standard and the wide area of commission judgment that necessarily obtains, it would seem anomalous to apply the comparable-earnings standard in an unduly restrictive way.⁹¹ The Supreme Court cases present a variety of indicators of comparable risk for the commissions to consider. There are references to comparisons of relative elasticity of demand and of volatility of sales, gross revenue, operating expenses and net earnings;⁹² extent of competition or prospective competition;⁹³ the hazards or anticipation of severity of regulation;⁹⁴ protection of markets, as by affiliates.⁹⁵

In the actual process of setting rates and returns, other factors are at work, that moderate the need for exact resolution of the consequences of the foregoing standards in terms of rate of return. As Justice Jackson said, there is a "substantial spread between what is unreasonable because too low and what is unreasonable because too high."⁹⁶ Justice Brandeis' opinion in *Southwestern Bell Telephone* pointed out that the public interest may require a rate of greater return than the so-called "bare bones" cost of capital, and that a reasonable rate "may allow an efficiently managed utility much more" than a minimum non-confiscatory rate.⁹⁷ It would be ideal if a commission could accompany its reward for efficiency in the form of a greater "return" to the company with a demonstration that the offsetting cost reductions attributable to efficiency yield a lower cost of service to the public overall. Such quantitative demonstrations would be extremely difficult to establish in fact, but that does not negate the propriety of an allowance for efficiency.

A measure of efficiency commonly used by economists is the trend in relative prices of the goods and services sold by a firm taken in conjunction with the trend in the quality of its goods and services. For regulatory purposes the

91. The commissions might well adopt the mathematician's approach of successive approximations.

92. Such evidence was presented by the FPC staff in *Hope*. Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 601 (1944).

93. See note 88 *supra*.

94. See *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679, 694 (1923).

95. See *FPC v. Natural Gas Pipeline Co.*, 315 U.S. 575, 597 (1942) (business "exceptionally free from hazards" because all its gas distributed through affiliates under contracts requiring three-fifths of its gas to be paid for even if not taken).

96. *Montana-Dakota Util. Co. v. Northwestern Pub. Serv. Co.*, 341 U.S. 246, 251 (1951). The "zone of reasonableness" in the earlier Supreme Court cases is discussed in Hale, *Commissions, Rates and Policies*, 53 HARV. L. REV. 1103, 1115 (1940).

97. *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Comm'n*, 262 U.S. 276, 291 (1923) (concurring opinion).

notion of quality should include an awareness of the needs of the public as they change and grow, conscientious effort to put technological research and developments to the service of the community, and responsiveness to the community's plans and programs.⁹⁸

The ultimate question is: is the public getting its money's worth? The fact that commissions rarely provide an overt allowance for efficiency does not mean that when a utility offers the public superior and energetic management the commission does not weigh that fact in determining where within the zone of reasonableness the rate should fall. Incidentally, since such management would ordinarily have the effect of increasing investor regard and hence security prices, care must be taken that the stockholders are not disadvantaged by the high quality of management, which disadvantage would result if the high prices of the securities are deemed evidence of excessive rates. Nor should a commission penalize efficiency by lowering rates when the earnings-investment ratio is high in comparison to what less well-managed companies are earning.

A final consideration as to where in the zone of reasonableness to set the rate may be drawn from a comparison of the comparable-earnings ratio with the earnings-price ratio. There are at least dicta intimating that the higher of the two should be paid.⁹⁹ If these standards are correctly applied, the case may be rare in which they differ so much that it will be necessary to choose one as dominant. They may be viewed as largely intersecting circles, with the range of judgments involved in each being of such magnitude that they are more likely to shed light on each other than to contradict each other. Certainly any abandonment of the comparable-earnings standard because of the impression (probably mistaken) that a lesser return will currently suffice to attract new capital is unsound in law, and in practice would mean a short-term savings in rate dearly bought at the expense of long-run considerations. There is an overall question of public faith underlying rate regulation. And a company which does not provide comparable returns for its existing investors will eventually lose its working capital and fail to attract more. On the other hand, there may be situations in which it is necessary to attract capital even though the rate required to do so may be high compared with the rate properly calculable on the comparable-earnings standard. The higher rate might be paid, for example, if rates are being set for a utility required to engage in unusually large expansion, or to negotiate large capital commitments substantially in advance of the period of the need for the service. Here a commission might use the concept of the zone of reasonableness to depart from the strictly competitive return in order to provide a subsidy in the public interest.

Thus, in the long run, it may still be necessary to keep the attraction-of-capital standard and its earnings-price formula in mind though viewing it in its proper perspective. Each utility and each case stands on its own footing but

98. Compare Justice Frankfurter, dissenting, in *Hope*, 320 U.S. at 627.

99. See, e.g., *Michigan-Wisconsin Pipe Line Co. v. Federal Power Comm'n*, 263 F.2d 553, 558 (6th Cir. 1959). The use of the word "moreover" in *Hope* (see text accompanying note 11 *supra*) is suggestive of the same conclusion.

that does not mean a commission should jettison the propriety and need of first making general analyses before making individual adjustments. Certainly it is appropriate for the parties, commissions and courts to make analyses of comparative risks and other relevant data. It is only by probing our knowledge of risk and its measurement that advances in this field can be made.

To conclude with a quip: Do not abandon *Hope*. As in so many matters assigned to regulatory commissions, the experts carry the discussion only to a point. The critical determinations are left for the commission within the parameters set by constitutional requirements and fair treatment of investors and consumers. The dominant consideration is the furtherance of public service. The commission must apply, not formulae, but its practical judgment to the complex data before it.